

Abstract

The invention relates to a method for storing ecologically dangerous substances underground and to an apparatus for accomplishing the method. These substances are preferably radioactive waste, spent fuel elements, nuclear warheads, weapons-grade uranium and plutonium in all forms as well as chemical weapons and many other toxic substances, including biologically dangerous substances. Moreover, the invention can be used for storing many other, specific storage objects, preferably particularly valuable metals, minerals and jewellery produced from same, as well as valuable papers, banknotes, archive contents and historical documents which are to be stored for a long time, etc. Storage takes place in a storage site having deep underground boreholes, by means of a special gas-hydrodynamic system and by means of remote control of all the necessary deep loading and unloading operations without using conventional mechanical loading and unloading devices such as shaft elevators, lifts etc. which substantially restrict the range of application of underground storage sites. Furthermore, unauthorised access to the storage objects is excluded and nuclear and radiation safety is guaranteed in the storage of, for example, radioactive waste, spent fuel elements and also weapons-grade uranium and plutonium as is the safety of stocks of chemical weapons and/or their dangerous components as well as of many other toxic substances, and the fire safety of the underground storage zone and the reduction of storage costs are also guaranteed.